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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,296	10/21/2003	Takuro Sekiya	2271/71291	8028

7590 06/13/2007  
Ivan S. Kavrukov, Esq.  
Cooper & Dunham LLP  
1185 Avenue of the Americas  
New York, NY 10036

EXAMINER
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LIANG, LEONARD S

ART UNIT	PAPER NUMBER
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2853

MAIL DATE	DELIVERY MODE
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06/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/690,296

Applicant(s)

SEKIYA, TAKURO

Examiner

Leonard S. Liang

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11,22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/16/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoi (US Pat 5764245) in view of Malhotra et al (US Pat 5897961) and Kupcho et al (US Pat 5670995).

Yokoi discloses:

- {claim 11} An ink-jet recording apparatus (figure 1); a containing member which contains a recording medium (figure 1, reference 5); a printing unit comprising an ink-jet recording head which jets recording liquid onto the recording medium (figure 1, reference 1); a conveyance unit and a conveyance path for conveying the recording medium, one side of which has already been printed, into the printing unit again in order to print an image onto the other side thereof (figures 1 and 7-14; abstract); the ink-jet recording apparatus enables the printing unit to print images on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium coincide with each other (column 3, lines 30-48); wherein the ink-jet recording apparatus has a memory

that is used for printing image on the back side of the recording medium, front side of which has been already printed (abstract; column 3, lines 1-18); the ink-jet recording apparatus sends the image data to the ink-jet recording head in the reverse order so that the image data is printed on the back side of the recording medium from bottom to top direction (abstract; column 3, lines 30-48; orientations defined as "bottom" and "top" are subjective depending on perspective)

- {claim 22} wherein top and bottom of the image on the front side of the recording medium coincide with top and bottom of the recording medium, and top and bottom of the image on the back side of the recording medium coincide with the top and bottom of the image on the front side of the recording medium (column 3, lines 30-43)
- {claim 23} An ink-jet recording apparatus (figure 1); a printing unit comprising an ink-jet recording head which jets recording liquid onto a recording medium (figure 1, reference 1); a memory that is used for printing image on a back side of the recording medium, a front side of the recording medium having already been printed (column 3, lines 3-18); a conveyance unit and a conveyance path for conveying the recording medium, the front side of the recording medium having been already printed, into the printing unit again in order to print an image onto the back side of the recording medium (figures 1 and 7-14; abstract); wherein the ink-jet recording apparatus sends the image data for the back side to the ink-jet recording head in the reverse order so that the image data is printed on the back

side of the recording medium from bottom to top direction (abstract; column 3, lines 30-48; orientations defined as "bottom" and "top" are subjective depending on perspective); the vertical orientations of the images printed on the front and back sides, respectively, of the recording medium coincide with each other (column 3, lines 30-48)

Yokoi differs from the claimed invention in that it does not disclose:

- {claim 11} wherein, to prevent the blurring of ink into the other side, the thickness of the base member falls within a range between 100 micrometers through 500 micrometers, and the amount of the granular material falls within a range between 10 g/m<sup>2</sup> and 100 g/m<sup>2</sup> on each of both sides and roughness of the surfaces of the recording medium coated granular material is smaller than the roughness of the base member; the ink-jet recording apparatus memory can hold data of one page volume in one chunk (please note that the language "to prevent the blurring of ink into the other side" is intended use language, and therefore not given heavy patentable weight)
- {claim 23} a containing member containing a recording medium having a base member and granular material coated on both sides of the base member, wherein the thickness of the base member falls within a range between 100 micrometers through 500 micrometers, and the amount of the granular material falls within a range between 10 g/m<sup>2</sup> and 100 g/m<sup>2</sup> on each of both sides and roughness of the surfaces of the recording medium coated granular material is smaller than the

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roughness of the base member; a memory configured to hold data of one page volume in one chunk

Malhotra et al discloses:

- {claim 11} wherein, to prevent the blurring of ink into the other side, the thickness of the base member falls within a range between 100 micrometers through 500 micrometers (abstract), and the amount of the granular material falls within a range between  $10 \text{ g/m}^2$  and  $100 \text{ g/m}^2$  on each of both sides (column 6, lines 14-16) and roughness of the surfaces of the recording medium coated granular material is smaller than the roughness of the base member (column 6, lines 16-17)
- {claim 23} a containing member containing a recording medium having a base member and granular material coated on both sides of the base member, wherein the thickness of the base member falls within a range between 100 micrometers through 500 micrometers (abstract), and the amount of the granular material falls within a range between  $10 \text{ g/m}^2$  and  $100 \text{ g/m}^2$  on each of both sides (column 6, lines 14-16) and roughness of the surfaces of the recording medium coated granular material is smaller than the roughness of the base member (column 6, lines 16-17)

Kupcho et al discloses:

- {claim 11} the ink-jet recording apparatus memory can hold data of one page volume in one chunk (column 9, lines 41-51)

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- {claim 23} a memory configured to hold data of one page volume in one chunk  
(column 9, lines 41-51)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Malhotra et al into the invention of Yokoi. The motivation for the skilled artisan in doing so is to gain the benefit of improved image quality with images of higher resolution.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Kupcho et al into the invention of Yokoi. The motivation for the skilled artisan in doing so is to gain the benefit of storing sufficient information to comprise several pages of information to be printed on the front or back side of a paper sheet (column 9, lines 48-51).

### ***Response to Arguments***

Applicant's arguments filed 03/16/07 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 11 and 22-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Sakaki et al (US Pat 6055001) discloses a recording method based on direction of cut of recording sheets and apparatus therefor.

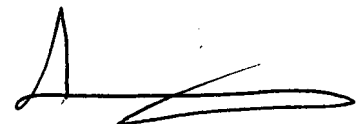
Fujii et al (US PgPub 20020196322) discloses an ink jet recording medium for pigment ink and ink jet recording method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148.

The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**STEPHEN MEIER**  
**SUPERVISORY PATENT EXAMINER**

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